

IN THE CLAIMS

1. (Currently Amended) A golf ball comprising a cover,
wherein the cover is made from a cover material including a cured product of a thermosetting
resin composition containing a thermosetting urethane resin composition;
the thermosetting urethane resin composition comprises an isocyanate group-terminated urethane
prepolymer and a polyamine compound;
the isocyanate group-terminated urethane prepolymer contains an isocyanate component formed
by at least one diisocyanate compound selected from the group consisting of 4,4'-
dicyclohexylmethane diisocyanate, cyclohexane diisocyanate and isophorone
diisocyanate;
the polyamine compound contains 3,3'-diethyl-5,5'-dimethyl-4,4'-diaminodiphenylmethane;
the stiffness modulus of the cover material is 80 to 260 MPa; and
the stiffness modulus and shore D hardness of the cover material satisfy the following equation:

$$2.0 \leq A/B \leq 5.0, 40 \leq B \leq 60.55$$

A: Stiffness modulus (MPa)

B: Shore D hardness.

2. (Previously Presented) A golf ball according to claim 1, wherein the stiffness
modulus and shore D hardness of the cover material satisfy the following equation:

$$2.0 \leq A/B \leq 4.0.$$

3. (Cancelled)

4. (Previously Presented) A golf ball according to claim 1, wherein the shore D hardness of the cover material is 45 to 55.

5. (Cancelled)

6. (Currently Amended) A method of producing a golf ball having a cover made from a material including a cured product of thermosetting resin composition comprising:

selecting a cover material satisfying the following equation:

$$2.0 \leq A/B \leq 5.0$$

$$40 \leq B \leq \underline{55}$$

A: Stiffness modulus (MPa)

B: Shore D hardness; and

covering a ball body with the cover material, wherein

the cover is made from a cover material including a cured product of a thermosetting resin composition containing a thermosetting urethane resin composition;

the thermosetting urethane resin composition comprises an isocyanate group-terminated urethane prepolymer and a polyamine compound;

the isocyanate group-terminated urethane prepolymer contains an isocyanate component formed by at least one diisocyanate compound selected from the group consisting of 4,4'-

dicyclohexylmethane diisocyanate, cyclohexane diisocyanate and isophorone diisocyanate;

the polyamine compound contains 3,3'-diethyl-5,5'-dimethyl-4,4'-diaminodiphenylmethane; and
the stiffness modulus of the cover material is 80 to 260 MPa.

7. (Previously Presented) The method according to claim 6, wherein the stiffness modulus and shore D hardness of the cover material satisfy the following equation:

$$2.0 \leq A/B \leq 4.0.$$

8. (Cancelled)

9. (Previously Presented) The method according to claim 6, wherein the shore D hardness of the cover material is 45 to 55.

10. (Cancelled)

11. (Previously Presented) A golf ball according to claim 1, wherein the thermosetting urethane resin composition consists essentially of the isocyanate group-terminated urethane prepolymer and the polyamine compound.

12. (Previously Presented) The method according to claim 6, wherein the thermosetting urethane resin composition consists essentially of the isocyanate group-terminated urethane prepolymer and the polyamine compound.

13. (Currently Amended) A golf ball comprising a cover,
wherein the cover is made from a cover material including a cured product of a thermosetting resin composition containing a thermosetting urethane resin composition;
the thermosetting urethane resin composition consists essentially of an isocyanate group-terminated urethane prepolymer and a polyamine compound;
the isocyanate group-terminated urethane prepolymer contains an isocyanate component formed by at least one diisocyanate compound selected from the group consisting of 4,4'-dicyclohexylmethane diisocyanate, cyclohexane diisocyanate and isophorone diisocyanate;
the polyamine compound contains 3,3'-diethyl-5,5'-dimethyl-4,4'-diaminodiphenylmethane;
the stiffness modulus of the cover material is 80 to 260 MPa; and
the stiffness modulus and shore D hardness of the cover material satisfy the following equation:

$$2.0 \leq A/B \leq 5.0, 40 \leq B \leq \underline{60-55}$$

A: Stiffness modulus (MPa)

B: Shore D hardness.

14. (Previously Presented) A golf ball according to claim 1, wherein the cover has a thickness of 0.2 to 1.5mm.

15. (Previously Presented) A method according to claim 6, wherein the cover has a thickness of 0.2 to 1.5mm.

16. (Previously Presented) A golf ball according to claim 13, wherein the cover has a thickness of 0.2 to 1.5mm.